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EXAMINER

ROSSI, JESSICA

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,605

Applicant(s)

TOKIOKA ET AL.

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/28/06, Amendment.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment dated 4/28/06. Claim 12 was cancelled. Claims 21-24 were added. Claims 1-11 and 13-24 are pending.

Specification

2. The disclosure is objected to because of the following informalities: the term "flit" glass is still referred to throughout the specification (p. 18, line 3; p. 28, line 17). One having ordinary skill in the art would appreciate that this term is intended to be "frit" glass and therefore correction of the terminology will not result in a new matter issue. Appropriate correction is required.

Claim Objections

3. Claims 13 and 21 are objected to because of the following informalities:

Claim 13, line 3: "an the member" should be --and the member--.

Claim 21, line 6: "of a portion to be" should be --or a portion to be--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-11 and 13-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the

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relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claim 1, the specification does not have support for forming a closed bonding line **at a state of setting** the member to abut on the substrate when the seal bonding material is disposed along a corner portion formed by setting the member to abut on the substrate. Applicant is asked to clarify. When the seal bonding material is disposed along a corner portion formed by setting the member to abut on the substrate, as is set forth in claim 1, the specification only has support for forming the bonding line after the setting step (p. 5, lines 13-16) and therefore Applicant should amend the claim accordingly.

With respect to claim 21, the specification does not have support for heating the member **at a state** of setting the member to abut on the substrate. Applicant is asked to clarify. It appears that the specification only has support for heating the member after setting the member to abut on the substrate (Figure 7C; p. 36, lines 13-25). Regardless of when the member is heated, the specification does not have support for heating the member at a temperature equal to or lower than 130°C (see MPEP 2163.05, "Range Limitations").

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-11 and 13-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, it is unclear as to how the bonding line can be formed at a state of setting the member to abut on the substrate when the claim establishes that the seal bonding

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material is disposed along a corner portion formed by setting the member to abut on the substrate, which clearly means that the corner portion is already formed before the seal bonding material is disposed (see specification at p. 5, lines 14-16). Applicant is asked to clarify. It is suggested to amend the claim to state that the bonding line is formed after the setting step.

Regarding claim 2, it recites the limitation "each small region" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim. Applicant is asked to clarify.

Regarding claim 6, it is unclear what Applicant intends by low-melting point substance? What melting temperatures constitute low melting temperatures? Applicant is asked to clarify.

Regarding claim 11, it recites the limitation "the seal bonding member" in line 2. There is insufficient antecedent basis for this limitation in the claim. Applicant is asked to clarify. It is suggested to delete "when the seal bonding member, which is obtained as" from line 2.

Regarding claim 13, it recites the limitation "each small region" in line 4. There is insufficient antecedent basis for this limitation in the claim. Applicant is asked to clarify.

Regarding claim 18, it recites the limitation "the seal bonding member" in line 2. There is insufficient antecedent basis for this limitation in the claim. Applicant is asked to clarify. It is suggested to delete "when the seal bonding member, which is obtained as" from line 2.

Regarding claims 19-20, they provide for the use of the method of making an airtight container to make an image display, but since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced. It is suggested to delete the limitations in claim 19 and in their place insert --A method of manufacturing an airtight container according to claim 1, wherein the

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airtight container is an image display apparatus.-- and to delete the limitations in claim 20 and in their place insert --A method of manufacturing an airtight container according to claim 21, wherein the airtight container is an image display apparatus.--.

Furthermore, claims 19-20 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

With respect to claim 21, it recites the limitation "the seal bonding member" in lines 10-11. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change "member" to --material--.

Also regarding claim 21, it is unclear as to what Applicant means by "bonded bonding" in line 11. Applicant is asked to clarify. It is suggested to delete "bonded."

Regarding claim 24, it recites the limitation "the heating member" in line 2. There is insufficient antecedent basis for this limitation in the claim. Even if antecedent basis is established for the heating member, it is still unclear as to what Applicant means by "the heating member is performed by heating the entire airtight container" since this phrase makes no sense. Furthermore, it is also unclear as to how the step of heating locally can involve heating the entire container since these two things contradict each other. Applicant is asked to clarify. It appears that Applicant is attempting to claim that which is shown in Figure 7C and disclosed on p. 36, lines 13-25, but has just failed to do so in a clear and definite manner.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1-3, 6 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haven et al. (US 2235681, of record) in view of the collective teachings of Veerasamy (US 6365242) and Schrank (US 4839557).

Applicant is directed to paragraph 6 of the previous action for a complete discussion of Haven where all the limitations were addressed except for the seal bond material being linear and having a round cross-sectional configuration.

Haven teaches the seal bond material (91 in Figure 18; 93/94 in Figure 20) extending around the entire periphery of the container, just like the present invention, and therefore teaches a linear seal bonding material (p. 5, column 2, lines 59-60; p. 6, column 1, lines 39-45).

Haven also teaches that any means can be used for disposing the seal bonding material where in one example the seal bonding means can be applied in a molten state (p. 5, column 1, lines 60-65). Selection of a particular cross-sectional area for the disposed seal bonding material would have been within purview of one having ordinary skill in the art. Therefore, selection of a particular cross-sectional area for the seal bonding material would have been within purview of one having ordinary skill in the art; however, it would have been obvious to use a seal bonding material having a round cross-sectional area because disposing seal bonding materials, including low melting point metals like that of Haven, in molten or solid form having round cross-sectional areas for hermetically sealing a periphery to form an airtight container is known in the art, as

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taught by the collective teachings of Veerasamy (Figures 7-11; column 6, lines 20-25 and 40-65; column 7, lines 25-40; column 9, lines 20-30) and Schrank (Figures 4-5; column 6, lines 23-25).

10. Claims 1-3, 6, 8-11 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haven et al. in view of the collective teachings of Veerasamy and Schrank as applied above and further in view of the collective teachings of Wang et al. (US 6444281) and Barzilai et al. (US 4150878).

*It appears that Applicant intends for claim 1 to be limited to disposing the seal bonding material along the corner portion after the corner portion is already formed by setting the member to abut on the substrate. Although the present claim language does not limit claim 1 to such an interpretation, the following rejection is provided to expedite prosecution:

It is known in the manufacture of airtight containers to dispose a seal bonding material, including low melting point metals, along a corner portion that is already formed by setting a member to abut on a substrate, as taught by the collective teachings of Wang (Figure 4; column 3, lines 48-65; column 4, line 58 – column 5, line 4; column 5, lines 21-22) and Barzilai (Figures 1-2 and 6; column 3, lines 8-11; column 5, lines 20-25; column 6, lines 60-61; column 8, lines 3-6). Therefore, it would have been obvious to one having ordinary skill in the art to dispose the seal bonding material along the corner portion of Haven after the corner portion is formed by setting the member to abut on the substrate because such is known in the art, as taught by the collective teachings of Wang and Barzilai, where this eliminates any premature curing or contamination of the seal bonding material that is possible when it is pre-applied to the member.

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With respect to claim 21, all the limitations were addressed above with respect to claim 1, except the seal bonding material being indium or indium alloy and heating the member to a temperature equal to or lower than 130°C.

Haven teaches that a number of variations of low melting point metal can be used for the seal bonding material (p. 4, column 2, lines 61-62; p. 5, column 1, lines 69-75). Therefore, it would have been obvious to one having ordinary skill in the art to use indium or indium alloy because its use as a seal bonding material for forming a hermetic seal around the periphery of an airtight container is well known in the art, as taught by the collective teachings of Wang (column 3, lines 48-65) and Veerasamy (column 6, lines 40-65), because such a seal bonding material does not require processing temperatures greater than about 200°C (Veerasamy; column 2, lines 65-67; column 8, lines 8-12).

Haven teaches heating the member but it is unclear as to what temperature. Haven in view of Veerasamy teach heating the member to a temperature equal to or lower than 130°C (Veerasamy; column 8, lines 8-12).

Regarding claims 22-24, Haven in view of Veerasamy teach such.

11. Regarding claims 4, 7 and 13-18, Applicant is directed to paragraphs 9-13 of the previous action.

12. Claims 1-2, 5, 11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang et al. (US 6828731, of record) in view of Nishimura (US 6309272, of record), further in view of the collective teachings of Veerasamy and Schrank.

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Applicant is directed to paragraphs 7 and 17 of the previous action for a complete discussion of the Kang and Nishimura references where all the limitations were addressed except for the seal bond material being linear and having a round cross-sectional configuration.

Kang teaches the seal bond material 22 extending around the entire periphery of the container, just like the present invention, and therefore teaches a linear seal bonding material (Figure 3; column 5, lines 20-25).

Kang teaches the seal bonding material being frit glass and disposing the seal bonding material as a coating. One reading Kang as a whole would have appreciated that Kang is not concerned with a particular application technique for the seal bonding material or a particular cross-sectional area for the seal bonding material. Selection of a particular cross-sectional area for the seal bonding material would have been within purview of one having ordinary skill in the art; however, it would have been obvious to use a seal bonding material having a round cross-sectional area because disposing seal bonding materials, including frit glass, having round cross-sectional areas for hermetically sealing a periphery to form an airtight container is known in the art, as taught by the collective teachings of Veerasamy (Figures 7-11; column 6, lines 20-25 and 40-65; column 7, lines 25-40; column 9, lines 20-30) and Schrank (Figures 4-5; column 6, lines 23-25).

13. Claims 13, 18 and 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang et al., Nishimura, and the collective teachings of Veerasamy and Schrank, as applied to claim 1 above and further in view of Schermerhorn (US 5723945) and further in view of Misonou (US 2002/0064610).

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With respect to claim 21, all the limitations were addressed above with respect to claim 1, except the seal bonding material being indium or indium alloy and heating the member to a temperature equal to or lower than 130°C.

Kang teaches the seal bonding material being glass frit but one reading Kang as a whole would have appreciated that such is not critical to the invention. Therefore, it would have been obvious to one having ordinary skill in the art to use indium or indium alloy as an alternative to the glass frit of Kang because its use as a seal bonding material in the airtight container art as it relates to display devices is well known, as taught by Schermerhorn (column 8, lines 49-52), and its use as an alternative to glass frit for hermetically sealing the periphery of an airtight container is known in the art, as taught by Misonou (sections [0043, 0077]), where indium does not require processing temperatures greater than about 200°C unlike glass frit, as taught by Veerasamy (column 2, lines 65-67; column 8, lines 8-12).). The examiner appreciates that Veerasamy teaches making an insulated window; however, it is noted that it is known to make airtight containers that can be used as insulated windows or display devices using the same process where the periphery of the container is hermetically sealed by a seal bonding material, such as glass frit or indium, as also taught by Misonou (sections [0043, 0077]).

Kang teaches heating the member but it is unclear as to what temperature. Kang in view of Veerasamy teach heating the member to a temperature equal to or lower than 130°C (Veerasamy; column 8, lines 8-12).

Regarding claims 22-24, Kang in view of Veerasamy teach such.

14. Regarding claims 4, 7 and 15-16, Applicant is directed to paragraphs 15-18 of the previous action.

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15. Claims 1-6, 10-11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrank in view of Wang et al. (US 6635321) and also in view of the collective teachings of Misonou and Minaai et al. (US 6309733).

Schrank teaches all the limitations – EL display has member (34 in Figure 4; 56 + 56 in Figure 5), substrate (30 in Figure 4; 50 in Figure 5), “bead” of linear seal bonding material that can be glass frit or epoxy (38 in Figure 4; 60 in Figure 5; column 5, line 66 – column 6, line 13; column 6, lines 22-25) – except locally heating the seal bonding material.

It is known in the art of making airtight containers to hermetically seal the periphery of the container using a seal bonding material, which can be glass frit or epoxy, wherein the seal bonding material is locally heated thereby reducing processing time and the need for expensive manufacturing equipment, as taught by Wang (column 3, lines 20-24; column 7, line 66 – column 8, line 6; column 8, lines 17-54).

Therefore, it would have been obvious to one having ordinary skill in the art to locally heat the seal bonding material of Schrank because such is known in the art, as taught by Wang, where this reduces processing time and the need for expensive manufacturing equipment; especially in light of the fact that it is known to make airtight containers that can be used as insulated windows or display devices using the same process where the periphery of the container is hermetically sealed by a seal bonding material, such as frit glass, as taught by the collective teachings of Misonou (sections [0043, 0077]) and Minaai (column 4, lines 51-57; column 8, lines 61-64; column 9, lines 13-18).

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16. Claims 21-24, 7-9, 13-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrank, Wang et al. '321, and the collective teachings of Misonou and Minaai et al. as applied to claim 1 above, and further in view of Schermerhorn and Veerasamy.

With respect to claim 21, all the limitations were addressed above with respect to claim 1, except the seal bonding material being indium or indium alloy and heating the member to a temperature equal to or lower than 130°C.

Schrank teaches the seal bonding material being glass frit or epoxy but one reading Schrank as a whole would have appreciated that such is not critical to the invention. Therefore, it would have been obvious to one having ordinary skill in the art to use indium or indium alloy as an alternative to the glass frit or epoxy of Schrank because its use as a seal bonding material in the airtight container art as it relates to display devices is well known, as taught by Schermerhorn (column 8, lines 49-52), and its use as an alternative to glass frit and epoxy for hermetically sealing the periphery of an airtight container is known in the art, as taught by Wang '321 (column 7, line 66- column 8, line 4), where indium does not require processing temperatures greater than about 200°C, as taught by Veerasamy (column 2, lines 65-67; column 8, lines 8-12). The examiner appreciates that Wang '321 and Veerasamy teach making an insulated window; however, it is noted that it is known to make airtight containers that can be used as insulated windows or display devices using the same process where the periphery of the container is hermetically sealed by a seal bonding material, such as glass frit or indium, as taught by Misonou (sections [0043, 0077]).

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Schrank teaches heating the member but it is unclear as to what temperature. Schrank in view of Veerasamy teaches heating the member to a temperature equal to or lower than 130°C (Veerasamy; column 8, lines 8-12).

Regarding claims 7-9 and 16-18, Schrank in view of Veerasamy teaches such (note groove and film of Veerasamy - Figures 6-11, column 8, lines 55-60).

Regarding claims 22-24, Schrank in view of Veerasamy teaches such.

17. Claims 1-6 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. '281 in view of Wang et al. '321.

Wang '281 teaches all the limitations – insulated window has member 5, substrate 3, linear seal bonding material 21 having round cross-sectional area (seal bonding material can be in form of wire; column 3, line 5; Figure 4; column 5, lines 21-22) that can be solder glass, indium, indium alloy, etc. (column 3, lines 48-65) – except locally heating the seal bonding material.

It is known in the art of making airtight containers to hermetically seal the periphery of the container using a seal bonding material, which can be glass frit, indium or epoxy, wherein the seal bonding material is locally heated thereby reducing processing time and the need for expensive manufacturing equipment, as taught by Wang '321 (column 3, lines 20-24; column 7, line 66 – column 8, line 6; column 8, lines 17-54).

Therefore, it would have been obvious to one having ordinary skill in the art to locally heat the seal bonding material of Wang '281 because such is known in the art, as taught by Wang '321, where this reduces processing time and the need for expensive manufacturing equipment.

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18. Claims 21-24 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang '281 and Wang '321 as applied to claim 1 above, and further in view of Veerasamy.

With respect to claim 21, all the limitations were addressed above with respect to claim 1, except the seal bonding material being indium or indium alloy and heating the member to a temperature equal to or lower than 130°C.

Wang '281 teaches the seal bonding material being indium or indium alloy (column 3, lines 48-65) and heating the member but it is unclear as to what temperature the member is heated to. It is known in the art of making airtight containers for insulated windows to hermetically seal the periphery of the container using a seal bonding material, such as indium, wherein the member is heated to a temperature that is equal to or lower than 130°C, as taught by Veerasamy (column 6, lines 40-65), because indium does not require processing temperatures greater than about 200°C thereby making it a more desirable seal bonding material than glass solder, which requires much higher heating temperatures that are detrimental to the glass sheets (Veerasamy; column 2, lines 48-55 and column 2, lines 65-67; column 8, lines 8-12 and 22-23).

Regarding claims 22-24, Wang '281 in view of Veerasamy teach such.

19. Claims 7-9 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. '281 and Wang et al. '321, or Wang '281 and Wang '321 and Veerasamy, as applied to claims 1 and 21 above, and further in view of Veerasamy.

Regarding claims 7-9 and 16-18, Wang '281 in view of Veerasamy teaches such (note groove and film of Veerasamy - Figures 6-11, column 8, lines 55-60).

20. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. '281 and Wang et al. '321, or Wang '281 and Wang '321 and Veerasamy, as applied to

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claims 1 and 21 above, and further in view of the collective teachings of Misonou and Minnai et al.

It would have been obvious to use the airtight container of Wang '281 as a image display apparatus because it is known to make airtight containers that can be used as an insulated window or an image display apparatus using the same process where the periphery of the container is hermetically sealed by a seal bonding material, such as solder glass or indium, as taught by the collective teachings of Misonou (sections [0043, 0077]) and Minaai (column 4, lines 51-57; column 8, lines 61-64; column 9, lines 13-18).

21. Claims 1-6, 10-11 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barzilai et al. in view of the collective teachings of Schrank and Veerasamy, further in view of Wang et al. '321, and further in view of the collective teachings of Misonou and Minaai et al.

Barzilai teaches all the limitations – display device has member 14, substrate 11, linear seal bonding material 30 that can be glass frit or epoxy (column 3, lines 8-11; column 5, lines 20-25; column 6, lines 60-61; column 8, lines 3-6) – except the seal bonding material having a round cross-sectional area and locally heating the seal bonding material.

One reading Barzilai would have appreciated that the reference is not concerned with a particular technique for disposing the seal bonding material or a particular cross-sectional area for the seal bonding material. Therefore, selection of a particular cross-sectional area for the seal bonding material would have been within purview of one having ordinary skill in the art; however, it would have been obvious to dispose a seal bonding material that has a round cross-sectional area because such is known in the art of hermetically sealing a periphery to form an airtight container, as taught by the collective teachings of Schrank (Figures 4-5; column 6, lines

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23-25) and Veerasamy (Figures 7-11; column 6, lines 20-25 and 40-65; column 7, lines 25-40; column 9, lines 20-30).

It is known in the art of making airtight containers to hermetically seal the periphery of the container using a seal bonding material, which can be glass frit or epoxy, wherein the seal bonding material is locally heated thereby reducing processing time and the need for expensive manufacturing equipment, as taught by Wang '321 (column 3, lines 20-24; column 7, line 66 – column 8, line 6; column 8, lines 17-54).

Therefore, it would have been obvious to one having ordinary skill in the art to locally heat the seal bonding material of Barzilai because such is known in the art, as taught by Wang '321, where this reduces processing time and the need for expensive manufacturing equipment; especially in light of the fact that it is known to make airtight containers that can be used as insulated windows or display devices using the same process where the periphery of the container is hermetically sealed by a seal bonding material, as taught by the collective teachings of Misonou (sections [0043, 0077]) and Minaai (column 4, lines 51-57; column 8, lines 61-64; column 9, lines 13-18).

22. Claims 21-24, 7-9, 13-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barzilai et al., the collective teachings of Schrank and Veerasamy, Wang '321, and the collective teachings of Misonou and Minaai as applied to claim 1 above, and further in view of Schermerhorn and Veerasamy.

With respect to claim 21, all the limitations were addressed above with respect to claim 1, except the seal bonding material being indium or indium alloy and heating the member to a temperature equal to or lower than 130°C.

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Barzilai teaches the seal bonding material being glass frit or epoxy but one reading Barzilai as a whole would have appreciated that such is not critical to the invention. Therefore, it would have been obvious to one having ordinary skill in the art to use indium or indium alloy as an alternative to the glass frit or epoxy of Barzilai because its use as a seal bonding material in the airtight container art as it relates to display devices is well known, as taught by Schermerhorn (column 8, lines 49-52), and its use as an alternative to glass frit and epoxy for hermetically sealing the periphery of an airtight container is known in the art, as taught by Wang '321 (column 7, line 66- column 8, line 4), where indium does not require processing temperatures greater than about 200°C, as taught by Veerasamy (column 2, lines 65-67; column 8, lines 8-12). The examiner appreciates that Wang '321 and Veerasamy teach making an insulated window; however, it is noted that it is known to make airtight containers that can be used as insulated windows or display devices using the same process where the periphery of the container is hermetically sealed by a seal bonding material, such as glass frit or indium, as taught by Misonou (sections [0043, 0077]).

Barzilai teaches heating the member but it is unclear as to what temperature. Barzilai in view of Veerasamy teach heating the member to a temperature equal to or lower than 130°C (Veerasamy; column 8, lines 8-12).

Regarding claims 7-9 and 16-18, Barzilai in view of Veerasamy teaches such (note groove and film of Veerasamy - Figures 6-11, column 8, lines 55-60).

Regarding claims 22-24, Barzilai in view of Veerasamy teach such.

Response to Arguments

23. Applicant's arguments filed 4/28/06 have been fully considered but they are not persuasive.

24. On p. 17 of the remarks, Applicant argues that Haven does not teach providing a linear seal having a round cross-sectional area. Applicant is invited to reread the rejections set forth in paragraphs 9-10 above.

25. On p. 17-18, Applicant argues that Kang in view of Nishimura fails to teach or suggest a linear seal bonding material having a round cross-sectional area. Applicant is invited to reread the rejection set forth in paragraph 12 above.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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JESSICA ROSSI
PRIMARY EXAMINER

